GX-Force
Design Checksheet

Document No.GX-Force_SW201

Approval	Review	Preparation
Name : Engineering Div. 2 Mutou	Name : Engineering Div. 2 Hirao	Name : Engineering Div. 2 Ikarashi
Date 2021/1/22	Date 2021/1/22	Date 2021/1/21

No.	Date	Version	Revised content	Remarks
Ex.	20XX/XX/XX	RevX.X	Create New	
1	2021/1/21	Rev1.0	Create New	
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

Design checksheet (SW201)

Item	Check	Model : **GX-Force**	Completion date/ person in charge
Documents necessary for design	■	I/O map (Lists model of connecting device and manufacturer)	January 20,2021 /Ikarashi
	■	Block diagram (I/O state is described) (Hardware & Software)	January 20,2021 /Ikarashi
	■	Circuit diagram	January 20,2021 /Ikarashi
	■	Microcomputer data sheet/Microcomputer model: RX231, RL78/I1E	January 20,2021 /Ikarashi
	■	Peripheral device data sheet	January 20,2021 /Ikarashi
Confirmation of specification	■	Confirm that there is no problem with the connection between the microcomputer and the	January 20,2021 /Ikarashi
	■	・Make sure ports are adequate	January 20,2021 /Ikarashi
	■	・Confirm all connections with peripheral devices	January 20,2021 /Ikarashi
	■	・Verify the input/output of the I/O map matches that of the block diagram	January 20,2021 /Ikarashi
	■	・Verify slaves are not duplicated when multiple devices are connected to the same I^2C bus	January 20,2021 /Ikarashi
	■	Selection of operation clock	January 20,2021 /Ikarashi
	■	・Calculate the peripheral device operable range and check whether it meets the specifications	January 20,2021 /Ikarashi
	■	・Calculate communication speed and check whether it meets specifications	January 20,2021 /Ikarashi
Interrupt processing	■	Applicable interrupt processes	January 20,2021 /Ikarashi
	■	・When using external interrupt, confirm that there is no problem in the circuit configuration	January 20,2021 /Ikarashi
	■	・Verify that there aren't any problems with the design for multiple interrupt permissions	January 20,2021 /Ikarashi
D/A conversion (including PWM method)	■	Confirm the type of D/A to be used and the variable range	January 20,2021 /Ikarashi
External A/D conversion	■	~~Check the type and variable range of the external A/D to~~ be used	January 20,2021 /Ikarashi
Development environment	■	Full-scale debugging start date: February, 2021	January 20,2021 /Ikarashi
	■	~~Development tool (ICE) to use (existing, purchase,~~ rental) items	January 20,2021 /Ikarashi
	■	Use (existing ~~purchased, re~~ntal) development tool (JTAG)	January 20,2021 /Ikarashi
	■	・Confirm that the above development tool is not earmarked for other development	January 20,2021 /Ikarashi
	■	・To purchase or rent the above development tool, obtain an estimate	January 20,2021 /Ikarashi
	■	Debug board qty (5), request creation of board specification	January 20,2021 /Ikarashi
	■	ROM writer: FL-PR6	January 20,2021 /Ikarashi
	■	Personal computer: 64bit Japanese version Windows 10	January 20,2021 /Ikarashi
	■	Constant voltage power supply: DC24V	January 20,2021 /Ikarashi
	■	Signal generator: 1 unit	January 20,2021 /Ikarashi
	■	Dummy sensor: 1 type × 2 pieces (planned)	January 20,2021 /Ikarashi
	■	Communication cable: USB cable (Type A - Type C)	January 20,2021 /Ikarashi
	■	Development environment installation location: Experiment desk of Engineering Div. 2	January 20,2021 /Ikarashi
	■	~~Torque driver (Used ICE tightening torque range: ～~ Kgfcm）	January 20,2021 /Ikarashi
	■	Synchroscope: 1 unit	January 20,2021 /Ikarashi
	■	Other (For the integrated development environment and other support tools, see the	January 20,2021 /Ikarashi

New program	■	Novel program items (MCU related item 0)	January 20,2021 /Ikarashi
	■	・Outsourcing for new devices (Yes/No) [Device name:]	January 20,2021 /Ikarashi
	■	・Outsourcing for novel program items (Yes/No) [Device name:]	January 20,2021 /Ikarashi
	■	・Obtain estimate for outsourcing (obtain competitive quotes)	January 20,2021 /Ikarashi
Repurpose past assets	■	Assets that can be repurposed and feasibility of adopting standardized modules	January 20,2021 /Ikarashi
		■Item (General basic operation Repurposed from: GX-3R): Modularization (Yes/No)	January 20,2021 /Ikarashi
		■Item (Concentration calculation Repurposed from: GX-3R): Modularization (Yes/No)	January 20,2021 /Ikarashi
		■Item (Alarm processing Repurposed from: GX-3R): Modularization (Yes/No)	January 20,2021 /Ikarashi
		■Item (Self-diagnosis process Repurposed from: GX-3R): Modularization (Yes/No)	January 20,2021 /Ikarashi
		■Item (Display processing Repurposed from: GX-3R): Modularization (Yes/No)	January 20,2021 /Ikarashi
		■Item (Configuration processing Repurposed from: GX-3R): Modularization (Yes/No)	January 20,2021 /Ikarashi
		■Item (Communication processing Repurposed from: GX-3R): Modularization (Yes/No)	January 20,2021 /Ikarashi

Note1:Non-applicable items are striked through